IN THE CLAIMS

1. (Original) A filament cutout circuit for a fluorescent lamp (60), comprising:

a filament transformer (20) including a primary winding (22) and at least one secondary winding (24, 26, 28); and

a cutout transistor (30) serially connected to the primary winding (22); wherein the secondary winding (24, 26, 28) provides a filament voltage to at least one filament (62, 64) in the fluorescent lamp (60) and wherein a filament control input (12) turns on the cutout transistor (30) for a predetermined time period to preheat the filament (62, 64).

2. (Original) The circuit of claim 1 wherein the cutout transistor (30) comprises a power metal-oxide-semiconductor field-effect transistor.

3. (Original) The circuit of claim 1 wherein the at least one secondary winding (24, 26) comprises a first secondary winding (24) connected to a first filament (62) of the fluorescent lamp (60) and a second secondary winding (26) connected to a second filament (64) of the fluorescent lamp (60).

4. (Original) The circuit of claim 1 wherein the at least one secondary winding (24, 26, 28) comprises a first secondary winding (24) connected to a first filament (62a) of a first fluorescent lamp (60a), a second secondary winding (26) connected to a second filament (64b) of a second fluorescent lamp (60b), and a third secondary winding (28) connected to a second filament (64a) of the first fluorescent lamp (60a) and a first filament (62b) of the second fluorescent lamp (60b).

5. (Original) The circuit of claim 4 wherein the third secondary winding (28) is connected to the second filament (64a) of the first fluorescent lamp (60a) and the first filament (62b) of the second fluorescent lamp (60b) in one of a series filament configuration or a parallel filament configuration.

6. (Original) The circuit of claim 1 further comprising:

a cutout-transistor biasing network (40) electrically connected to the cutout transistor (30).

7. (Original) The circuit of claim 6 wherein the cutout-transistor biasing network (40) consists of a bias resistor (42) connected between the filament control input (12) and a gate electrode (32) of the cutout transistor (30), and a bias capacitor (44) connected between the gate electrode (32) and a source electrode (34) of the cutout transistor (30).

8. (Original) The circuit of claim 1 further comprising:

an interval timing circuit electrically connected to the cutout transistor (30), the interval timing circuit providing a filament control signal to the filament control input (12).

9. (Original) The circuit of claim 1 further comprising:

a blocking capacitor (50), wherein the blocking capacitor (50) is serially connected between a switching power-supply input (16) and the primary winding (22) of the filament transformer (20).

10. (Original) An electronic ballast for a fluorescent lamp (60) comprising:

a filament transformer (20) including a primary winding (22) and at least one secondary winding (24, 26, 28);

a cutout transistor (30) serially connected to the primary winding (22); and

a fluorescent-lamp controller (66) electrically connected to the cutout transistor (30); wherein the secondary winding (24, 26, 28) provides a filament voltage to at least one filament (62, 64) in the fluorescent lamp (60) and wherein the fluorescent-lamp controller (66) sends a filament control signal that turns on the cutout transistor (30) for a predetermined time period to preheat the filament (62, 64).

11. (Original) The electronic ballast of claim 10 wherein the cutout transistor (30) comprises a power metal-oxide-semiconductor field-effect transistor.

12. (Original) The electronic ballast of claim 10 wherein the at least one secondary winding (24, 26) comprises a first secondary winding (24) connected to a first filament (62) of the fluorescent lamp (60) and a second secondary winding (26) connected to a second filament (64) of the fluorescent lamp (60).

13. (Original) The electronic ballast of claim 10 wherein the at least one secondary winding (24, 26, 28) comprises a first secondary winding (24) connected to a first filament (62a) of a first fluorescent lamp (60a), a second secondary winding (26) connected to a second filament (64b) of a second fluorescent lamp (60b), and a third secondary winding (28) connected to a second filament (64a) of the first fluorescent lamp (60a) and a first filament (62b) of the second fluorescent lamp (60b).

14. (Original) The electronic ballast of claim 13 wherein the third secondary winding (28) is connected to the second filament (64a) of the first fluorescent lamp (60a) and the first

filament (62b) of the second fluorescent lamp (60b) in one of a series filament configuration or a parallel filament configuration.

15. (Original) The electronic ballast of claim 10 further comprising:

a cutout-transistor biasing network (40) electrically connected to the cutout transistor (30).

16. (Original) The electronic ballast of claim 15 wherein the cutout-transistor biasing network (40) consists of a bias resistor (42) connected between the filament control input (12) and a gate electrode (32) of the cutout transistor (30), and a bias capacitor (44) connected between the gate electrode (32) and a source electrode (34) of the cutout transistor (30).

17. (Original) The electronic ballast of claim 10 further comprising:

a blocking capacitor (50), wherein the blocking capacitor (50) is serially connected between a switching power-supply input (16) and the primary winding (22) of the filament transformer (20).

18. (Original) A method of operating a fluorescent lamp (60), comprising:

receiving a filament control signal;

generating a filament voltage responsive to the filament control signal;

maintaining the filament voltage for a predetermined time period sufficient to heat at least one filament (62, 64) in the fluorescent lamp (60) prior to igniting the fluorescent lamp (60); and

reducing the filament voltage upon expiration of the predetermined time period.

19. (Original) The method of claim 18 wherein the filament control signal is received from an interval timing circuit.

20. (Original) The method of claim 18 wherein the filament control signal is received from a fluorescent-lamp controller (66).

21. (New) A filament cutout circuit for a fluorescent lamp, the filament cutout circuit comprising:

a filament transformer including a primary winding and at least one secondary winding,

wherein the secondary winding provides a filament voltage to at least one filament in the fluorescent lamp and wherein the filament voltage has a fixed polarity; and

a cutout transistor connected to the primary winding,

wherein a filament control input turns on the cutout transistor for a predetermined time period to preheat the filament during consecutive cycles of an application of a switching power supply to the primary winding.

22. (New) The filament cutout circuit of claim 1, wherein the transistor and the primary winding are serially connected whereby the filament voltage has a fixed polarity.

23. (New) The filament cutout circuit of claim 21, wherein the cutout transistor includes:

a power metal-oxide-semiconductor field-effect transistor.

24. (New) The filament cutout circuit of claim 21, wherein the at least one secondary winding includes:

a first secondary winding connected to a first filament of the fluorescent lamp; and

a second secondary winding connected to a second filament of the fluorescent lamp.

25. (New) The filament cutout circuit of claim 21, wherein the at least one secondary winding includes:

a first secondary winding connected to a first filament of a first fluorescent lamp;

a second secondary winding connected to a second filament of a second fluorescent lamp; and

a third secondary winding connected to a second filament of the first fluorescent lamp and a first filament of the second fluorescent lamp.

26. (New) The filament cutout circuit of claim 25, wherein the third secondary winding is connected to the second filament of the first fluorescent lamp and the first filament of the second fluorescent lamp in one of a series filament configuration or a parallel filament configuration.

27. (New) The filament cutout circuit of claim 21, further comprising:

a cutout-transistor biasing network electrically connected to the cutout transistor.

28. (New) The filament cutout circuit of claim 27, wherein the cutout-transistor biasing network includes:

a bias resistor connected between the filament control input and a gate electrode of the cutout transistor; and

a bias capacitor connected between the gate electrode and a source electrode of the cutout transistor.

29. (New) The filament cutout circuit of claim 21, further comprising:

an interval timing circuit electrically connected to the cutout transistor,

wherein the interval timing circuit provides a filament control signal to the filament control input.

30. (New) The filament cutout circuit of claim 21, further comprising:

a blocking capacitor,

wherein the blocking capacitor is connected between a switching power-supply input and the primary winding of the filament transformer.

31. (New) An electronic ballast for a fluorescent lamp, the electronic ballast comprising:

a filament transformer including a primary winding and at least one secondary winding,

wherein the secondary winding provides a filament voltage to at least one filament in the fluorescent lamp and wherein the filament voltage has a fixed polarity;

a cutout transistor connected to the primary winding; and

a fluorescent-lamp controller electrically connected to the cutout transistor,

wherein the fluorescent-lamp controller sends a filament control signal that turns on the cutout transistor for a predetermined time period to preheat the filament during consecutive cycles of an application of a switching power supply to the primary winding.

32. (New) The electronic ballast circuit of claim 31, wherein the transistor and the primary winding are serially connected whereby the filament voltage has a fixed polarity.

33. (New) The electronic ballast of claim 31, wherein the cutout transistor includes a power metal-oxide-semiconductor field-effect transistor.

34. (New) The electronic ballast of claim 31, wherein the at least one secondary winding includes:

a first secondary winding connected to a first filament of the fluorescent lamp; and

a second secondary winding connected to a second filament of the fluorescent lamp.

35. (New) The electronic ballast of claim 31, wherein the at least one secondary winding includes:

a first secondary winding connected to a first filament of a first fluorescent lamp;

a second secondary winding connected to a second filament of a second fluorescent lamp; and

a third secondary winding connected to a second filament of the first fluorescent lamp and a first filament of the second fluorescent lamp.

36. (New) The electronic ballast of claim 35, wherein the third secondary winding is connected to the second filament of the first fluorescent lamp and the first filament of the second fluorescent lamp in one of a series filament configuration or a parallel filament configuration.

37. (New) The electronic ballast of claim 31, further comprising:

a cutout-transistor biasing network electrically connected to the cutout transistor.

38. (New) The electronic ballast of claim 37, wherein the cutout-transistor biasing network includes:

a bias resistor connected between the filament control input and a gate electrode of the cutout transistor; and

a bias capacitor connected between the gate electrode and a source electrode of the cutout transistor.

39. (New) The electronic ballast of claim 31, further comprising:

a blocking capacitor,

wherein the blocking capacitor is connected between a switching power-supply input and the primary winding of the filament transformer.

40. (New) A method of operating a fluorescent lamp, the method comprising:

generating a filament voltage sufficient to heat at least one filament in the fluorescent lamp prior to igniting the fluorescent lamp,

wherein the filament voltage is generated for a predetermined time period during consecutive cycles of an application of a switching power supply to the fluorescent lamp, and

wherein the filament voltage has a fixed polarity; and

reducing the filament voltage upon expiration of the predetermined time period.